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16:10:58 ON 18 DEC 2003)

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 16:11:18  
ON 18 DEC 2003

L1 226784 S SCREEN? (P) (COMPOUND? OR DRUG? OR AGENT?)  
L2 45204 S SCREEN? (P) (?ARRAY? OR GRID? OR LAWN)  
L3 5710 S L1 (6P) L2  
L4 5496 S L1 (3P) L2  
L5 8524 S PLANT (P) EXTRACT? (P) FRACTION?  
L6 13 S L4 (6P) L5  
L7 13 DUP REM L6 (0 DUPLICATES REMOVED)  
L8 2663 S L3 (6P) ((TARGET? OR PROTEIN?) (P) (ACTIV? OR BIND? OR INTER  
L9 2080 S L8 (6P) ((TARGET? OR PROTEIN?) (P) (BIND?))  
L10 1168 S L8 (6P) ((TARGET? OR PROTEIN?) (3A) (BIND?))  
L11 125119 S SCREEN? (3A) (COMPOUND? OR DRUG? OR AGENT?)  
L12 833 S L10 (6P) L11  
L13 813 S L12 (6P) (?ARRAY? OR LAWN?)  
L14 48767 S (?ASSAY? (3A) (TARGET? OR PROTEIN?) (P) (ACTIV? OR BIND? OR I  
L15 317 S L13 (6P) L14  
L16 641004 S SCREEN?/AB  
L17 134 S L16 AND L15  
L18 134 DUP REM L17 (0 DUPLICATES REMOVED)  
L19 249381 S ?ARRAY?/AB  
L20 252144 S MICROARRAY?/AB OR ARRAY?/AB  
L21 22 S L20 AND L18  
L22 22 DUP REM L21 (0 DUPLICATES REMOVED)  
L23 5049 S ?ARRAY? (3A) (COMPOUND? OR AGENT? OR DRUG? OR MEDIC?)  
L24 95 S L15 AND L23  
L25 95 DUP REM L24 (0 DUPLICATES REMOVED)  
L26 95 S L25 AND L  
L27 23 S L25 AND L20  
L28 23 DUP REM L27 (0 DUPLICATES REMOVED)

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is

(FILE 'HOME' ENTERED AT 15:18:33 ON 18 DEC 2003)

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:18:53  
ON 18 DEC 2003

L1 11397 S PLANT? (P) EXTRACT? (P) FRACTION?  
L2 2788 S L1 (6P) CHROMATOGRAPH?  
L3 132021 S SCREEN? (3A) (COMPOUND? OR AGENT? OR MEDIC? OR DRUG?)  
L4 53 S L2 (6P) L3  
L5 42 DUP REM L4 (11 DUPLICATES REMOVED)  
L6 148 S L1 (P) L3  
L7 38 S L4 (6P) L6  
L8 27 DUP REM L7 (11 DUPLICATES REMOVED)  
L9 227 S L1 (6P) (?ARRAY? OR GRID? OR LAWN)  
L10 69 S L9 (6P) L2  
L11 8 S L10 (6P) L3  
L12 8 DUP REM L11 (0 DUPLICATES REMOVED)  
L13 21 S L10 (6P) SCREEN?

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:59:54  
ON 18 DEC 2003

L14 1305 S SCREEN? (P) (ARRAY? OR GRID? OR LAWN) (P) (COMPOUND? OR DRUG?)

=>

L8 ANSWER 24 OF 27 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN  
ACCESSION NUMBER: 1998:9379 SCISEARCH  
THE GENUINE ARTICLE: YL606  
TITLE: The search for biologically active secondary metabolites  
AUTHOR: Hostettmann K (Reprint); Wolfender J L  
CORPORATE SOURCE: UNIV LAUSANNE, INST PHARMACOGNOSIE & PHYTOCHIM, BEP,  
CH-1015 LAUSANNE, SWITZERLAND (Reprint)  
COUNTRY OF AUTHOR: SWITZERLAND  
SOURCE: PESTICIDE SCIENCE, (DEC 1997) Vol. 51, No. 4, pp. 471-482.  
Publisher: JOHN WILEY & SONS LTD, BAFFINS LANE CHICHESTER,  
W SUSSEX, ENGLAND PO19 1UD.  
ISSN: 0031-613X.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: AGRI  
LANGUAGE: English  
REFERENCE COUNT: 30

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB **Plants** provide a rich source of novel biologically active **compounds**. Biological and chemical **screenings** are complementary approaches for the rapid detection and isolation of interesting new **plant** constituents. Biological screening followed by activity-guided **fractionation** has been used successfully in our laboratories for the discovery of antifungal, larvicidal and molluscicidal compounds. High performance liquid **chromatography** (HPLC) coupled to UV spectroscopy (LC/UV), mass spectrometry (LC/MS) and nuclear magnetic resonance (LC/NMR) has proved to be highly efficient for the chemical screening of crude **plant extracts**. In particular LC/MS and LC/MS/MS used with different ionisation techniques such as thermospray (TSP), continuous flow-FAB (CF-FAB) and electrospray (ES) have proved to be very efficient for the early recognition of molluscicidal saponins in *Swartzia madagascariensis* and *Phytolacca dodecandra*. The combination of LC/UV/NMR/MS was of great value for the investigation of polyphenols and bitter principles in *Gentianaceae* species. Among other examples, LC/NMR analysis of the antifungal crude **extract** of the African **plant** *Swertia calycina* is presented.

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FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:18:53  
ON 18 DEC 2003

L1	11397 S PLANT? (P) EXTRACT? (P) FRACTION?
L2	2788 S L1 (6P) CHROMATOGRAPH?
L3	132021 S SCREEN? (3A) (COMPOUND? OR AGENT? OR MEDIC? OR DRUG?)
L4	53 S L2 (6P) L3
L5	42 DUP REM L4 (11 DUPLICATES REMOVED)
L6	148 S L1 (P) L3
L7	38 S L4 (6P) L6
L8	27 DUP REM L7 (11 DUPLICATES REMOVED)
L9	227 S L1 (6P) (?ARRAY? OR GRID? OR LAWN)
L10	69 S L9 (6P) L2
L11	8 S L10 (6P) L3
L12	8 DUP REM L11 (0 DUPLICATES REMOVED)
L13	21 S L10 (6P) SCREEN?

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:59:54  
ON 18 DEC 2003

L8 ANSWER 23 OF 27 MEDLINE on STN DUPLICATE 4  
ACCESSION NUMBER: 1998380438 MEDLINE  
DOCUMENT NUMBER: 98380438 PubMed ID: 9712841  
TITLE: Primers of glycosaminoglycan biosynthesis from Peruvian  
rain forest plants.  
AUTHOR: Taylor W H; Sinha A; Khan I A; McDaniel S T; Esko J D  
CORPORATE SOURCE: Division of Cellular and Molecular Medicine, Department of  
Medicine, and the Glycobiology Program, University of  
California, La Jolla, California 92093-0687, USA.  
CONTRACT NUMBER: CA46462 (NCI)  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Aug 28) 273 (35)  
22260-6.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199809  
ENTRY DATE: Entered STN: 19981006  
Last Updated on STN: 19981006  
Entered Medline: 19980924

AB We have developed a rapid, high throughput **screening** assay for  
**compounds** that alter the assembly of glycosaminoglycan chains in  
Chinese hamster ovary cells. The assay uses autoradiography to measure  
the binding of newly synthesized [35S]proteoglycans and  
[35S]glycosaminoglycans to a positively charged membrane. Screening over  
1000 **extracts** from a random **plant** collection obtained  
from the Amazon rain forest yielded five **plants** that stimulated  
glycosaminoglycan assembly in both wild-type cells and a mutant cell line  
defective in xylosyltransferase (the first committed enzyme involved in  
glycosaminoglycan biosynthesis). **Fractionation** of an  
**extract** of *Maqueta guianensis* by silica gel and reverse-phase  
**chromatography** yielded two pure compounds with stimulatory  
activity. Spectroscopic analysis by NMR and mass spectrometry revealed  
that the active principles were xylosides of dimethylated ellagic acid.  
One of the compounds also contained a galloyl group at C-3 of the xylose  
moiety. These findings suggest that **plants** and other natural  
products may be a source of agents that can potentially alter  
glycosaminoglycan and proteoglycan formation in animal cells.

L8 ANSWER 24 OF 27 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN  
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THE GENUINE ARTICLE: YL606  
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L8 ANSWER 20 OF 27 MEDLINE on STN DUPLICATE 2  
 ACCESSION NUMBER: 2001074844 MEDLINE  
 DOCUMENT NUMBER: 20481499 PubMed ID: 11025153  
 TITLE: Isolation of an antibacterial sesquiterpenoid from  
 Warburgia salutaris.  
 AUTHOR: Rabe T; van Staden J  
 CORPORATE SOURCE: Research Center for Plant Growth and Development, School of  
 Botany and Zoology, University of Natal Pietermaritzburg,  
 P./Bag X01, 3209, South, Scottsville, Africa.  
 SOURCE: JOURNAL OF ETHNOPHARMACOLOGY, (2000 Nov) 73 (1-2) 171-4.  
 Journal code: 7903310. ISSN: 0378-8741.  
 PUB. COUNTRY: Ireland  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200101  
 ENTRY DATE: Entered STN: 20010322  
 Last Updated on STN: 20010322  
 Entered Medline: 20010104

AB The bark of Warburgia salutaris is used in traditional medicine as an  
 expectorant and smoked for coughs and colds, including a topical  
 application for sores and inflammation. A previous **screening** of  
 South African **medicinal plants** showed that this  
**plant** had promising antibacterial activity. Subsequently, this  
 endangered tree species was selected for bioassay-guided  
**fractionation** in order to identify the active principles.  
**Fractionation** of the ethyl acetate **extract** of the stem  
 bark by **chromatographic** techniques yielded a sesquiterpenoid  
 which exhibited antimicrobial activity against Gram-positive bacteria.  
 The compound, muzigadial, has previously been reported in two other  
 Warburgia species, this being the first time it has been reported from W.  
 salutaris. Muzigadial had minimum inhibitory concentration values ranging  
 from 12.5 to 100 microg ml<sup>-1</sup>.

AB . . . medicine as an expectorant and smoked for coughs and colds,  
 including a topical application for sores and inflammation. A previous  
**screening** of South African **medicinal plants**  
 showed that this **plant** had promising antibacterial activity.  
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L8 ANSWER 23 OF 27 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 1998380438 MEDLINE

DOCUMENT NUMBER: 98380438 PubMed ID: 9712841

TITLE: Primers of glycosaminoglycan biosynthesis from Peruvian rain forest plants.

AUTHOR: Taylor W H; Sinha A; Khan I A; McDaniel S T; Esko J D

CORPORATE SOURCE: Division of Cellular and Molecular Medicine, Department of Medicine, and the Glycobiology Program, University of California, La Jolla, California 92093-0687, USA.

CONTRACT NUMBER: CA46462 (NCI)

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Aug 28) 273 (35) 22260-6.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199809

ENTRY DATE: Entered STN: 19981006  
Last Updated on STN: 19981006  
Entered Medline: 19980924

AB We have developed a rapid, high throughput **screening** assay for **compounds** that alter the assembly of glycosaminoglycan chains in Chinese hamster ovary cells. The assay uses autoradiography to measure the binding of newly synthesized [35S]proteoglycans and [35S]glycosaminoglycans to a positively charged membrane. Screening over 1000 **extracts** from a random **plant** collection obtained from the Amazon rain forest yielded five **plants** that stimulated glycosaminoglycan assembly in both wild-type cells and a mutant cell line defective in xylosyltransferase (the first committed enzyme involved in glycosaminoglycan biosynthesis). **Fractionation** of an **extract** of *Maieta guianensis* by silica gel and reverse-phase **chromatography** yielded two pure compounds with stimulatory activity. Spectroscopic analysis by NMR and mass spectrometry revealed that the active principles were xylosides of dimethylated ellagic acid. One of the compounds also contained a galloyl group at C-3 of the xylose moiety. These findings suggest that **plants** and other natural products may be a source of agents that can potentially alter glycosaminoglycan and proteoglycan formation in animal cells.

ACCESSION NUMBER: 2001275120 EMBASE  
TITLE: Separation of crude plant extracts with high speed CCC for  
primary screening in drug discovery.  
AUTHOR: Armbruster J.A.; Borris R.P.; Jimenez Q.; Zamora N.;  
Tamayo-Castillo G.; Harris G.H.  
CORPORATE SOURCE: G.H. Harris, Merck Research Laboratories, Dept. of Nat.  
Prod. Drug Discovery, P.O. Box 2000, Rahway, NJ 07065,  
United States. guy\_harris@merck.com  
SOURCE: Journal of Liquid Chromatography and Related Technologies,  
(2001) 24/11-12 (1827-1840).  
Refs: 16  
ISSN: 1082-6076 CODEN: JLCTFC  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Conference Article  
FILE SEGMENT: 029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB High speed countercurrent **chromatography** (HSCCC) was used in a  
pre-**fractionation** pilot study to improve the quality of crude  
**plant** samples for primary **screening** in **drug**  
discovery efforts. The methanol **extracts** of sixty-four  
**plant** samples were (i) defatted, (ii) treated with  
poly-N-vinylpyrrolidone (PVP) for polyphenolic removal, and (iii)  
**fractionated** with a multilayer coil planet centrifuge. The ternary  
solvent system CH<sub>2</sub>Cl<sub>2</sub>:MeOH:H<sub>2</sub>O (5:6:4, v/v/v) was used based upon  
elution of known **plant** natural product standards with ranging  
polarities. Elution was carried out until a partition coefficient (K) of  
1, followed by column contents extrusion to exploit stationary phase  
separation and to increase the polarity range of compounds,  
**fractionated**. **Fractionation** was found to be consistent  
for all separated **extracts** with respect to sample recovery,  
stationary phase **fraction** (S(f)), and weight distribution by  
**fraction** number. Biological evaluation was conducted in 20  
mechanism-based, in-vitro assays with an evaluation of biodata trends.  
Bioassay interfering agents such as polyphenolics and fatty acids were  
**chromatographically** localized and rapidly identified.

L8 ANSWER 19 OF 27 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

ACCESSION NUMBER: 2002124353 EMBASE  
TITLE: Anti-elastase and anti-hyaluronidase of phenolic substance  
from Areca catechu as a new anti-ageing agent.  
AUTHOR: Lee K.-K.; Cho J.-J.; Park E.-J.; Choi J.-D.  
CORPORATE SOURCE: J.-D. Choi, Department of Biochemistry, Chungbuk National  
University, Cheong-Ju, Chungbuk 361-763, Korea, Republic  
of. dchoi@cbucc.chungbuk.ac.kr  
SOURCE: International Journal of Cosmetic Science, (2001) 23/6  
(341-346).  
Refs: 16  
ISSN: 0142-5463 CODEN: IJCMDW  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 013 Dermatology and Venereology  
021 Developmental Biology and Teratology  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English; French

AB We have previously **screened** 150 **medicinal**  
**plants** for the inhibition of elastase and found significant  
inhibitory effects of the **extracts** of Areca catechu L. on the  
ageing and inflammation of skin tissues. To isolate and identify the  
compounds having biological activity, they were further purified by each  
**fraction** of solvents, silica gel column **chromatography**,  
preparative TLC and reversed-phase HPLC. The peak in HPLC, which coincided  
with the inhibitory activity against elastase, was identified as a  
phenolic substance by using various colorimetric methods, UV and IR.  
IC(50) values of this phenolic substance were 26.9 .mu.g mL(-1) for  
porcine pancreatic elastase (PPE) and 60.8 .mu.g mL(-1) for human  
neutrophil elastase (HNE). This phenolic substance showed more potent  
activity than that of reference compounds, oleanolic acid (76.5 .mu.g  
mL(-1) for PPE, 219.2 .mu.g mL(-1) for HNE) and ursolic acid (31.0 .mu.g  
mL(-1) for PPE, 118.6 .mu.g mL(-1) for HNE). According to the  
Lineweaver-Burk plots, the inhibition against both PPE and HNE by this  
phenolic substance was competitive inhibition with the substrate. The  
phenolic substance from A. catechu effectively inhibited hyaluronidase  
activity (IC(50):210 .mu.g mL(-1)). These results suggest that the  
phenolic substance purified from A. catechu has an anti-ageing effect by  
protecting connective tissue proteins.

AB We have previously **screened** 150 **medicinal**